

Agri-chains and territories “zero-deforestation”: what role for the payments for environmental services?

Alain Karsenty¹

Strategies against deforestation are evolving. While uncertainties about funding and modalities of REDD+ are growing, private actions are multiplying, especially on the side of big agribusiness subject to pressure from environmental NGOs and consumers. More than 80% of deforested land is used for agricultural purposes. Industrial agriculture is responsible for two thirds of deforestation in Latin America and for one third in Africa. In addition to their direct responsibility, firms are also involved in deforestation caused by small producers. They are supporting the diversification of production systems towards perennial crops (oil palms, cocoa) through contracts with or monitoring of producers via the cooperatives that supply them.

Voluntary commitments

Since 2010, the major transnational food companies, especially for palm oil, which are criticised by environmental organisations, have been encouraged to cut out of their supply chains any products derived from deforestation. Some 20 companies committed to sourcing deforestation – free palm oil, such as the Indonesian Wilmar, one of the leading global producers. Some states – Indonesia, Côte d’Ivoire – pledged to support companies’ efforts to eliminate from their supply chains agricultural products derived from deforestation.

Companies’ zero deforestation commitments are becoming a new tool for mobilisation, whereas the hopes raised by REDD+ (Reducing Emissions from Deforestation and Forest Degradation in developing countries) are now fading.

However, these voluntary commitments are difficult to implement and to verify, especially when supply chains are comprised of a large number of small producers.

First of all, the concept of zero deforestation remains ambiguous. It implies agreement on the definition of a forest, especially on the minimum forest cover threshold per unit area and on canopy height. Next, how can consumers be sure the products they buy are zero deforestation if these products cannot be accurately traced from the original plot because there is no reliable cadastre? The clarification of land rights and the implementation of a georeferenced land information system in rural areas are therefore prerequisites.

Moreover, the zero deforestation targets imposed by companies are often too restrictive for small producers. This is reflected in the steps taken by producer organisations in Indonesia and Malaysia: they have asked palm oil companies to abandon their commitments and to adopt less binding objectives, on the grounds that small producers are unable to meet these requirements. Without additional long-term support for small producers to enable them to meet the demands of these firms, the zero deforestation commitment will be compromised.

Finally, it would be a mistake to think that even if firms are in a position to guarantee the effectiveness of their commitments, they can succeed in reversing current deforestation and degradation dynamics. Indeed, any given territory faces numerous factors of deforestation and, more generally, of environmental degradation, and managing one factor may lead to the development of another. Controlling production conditions for farmers in one sector does not mean that all drivers of degradation are controlled – other agricultural or pastoral production systems, charcoal production, and timber harvesting. In other words, a zero deforestation approach in one or more organised sectors could be accompanied by continued environmental degradation in a given territory. It is therefore necessary to act not only in supply chains, with firms and producers, but also in territories, with the communities living there.

1. CIRAD, UPR Forêts et Sociétés, F-34398 Montpellier, France.

PES as public policy tools

How can these obstacles be overcome? Payments for environmental services (PES) can provide an instrument for decoupling agricultural development and deforestation, in the sense that they provide a direct incentive to change practices or to engage in conservation.

PES are written contracts, whether individual or collective, that are voluntary and conditional (payments are only made once the service provided has been reported). Most PES reward people for a certain type of land use, in other words an environmental service provided by users, a use or service associated with the quantity and quality of an ecological service provided by nature. The distinction between land use-restricting PES and asset-building PES is well established. Individual PES reward people for a certain type of land use, in other words an environmental service provided. Collective PES reward communities for preserving the ecosystems in their territory in the long term.

Combining these two types of PES would make it possible to overcome the obstacles described: asset-building PES would support small producers in the adoption of agro-ecological practices; and collective PES would finance communities to preserve their territory.

As mentioned above, firms will only be able to fulfil their commitments if small producers implement ecologically intensive agrosilvopastoral systems, which will also enable them to increase their income and to avoid encroaching on the natural ecosystems still available. This would require financial support to promote innovation and to encourage land users to plant trees and hedges or to restore degraded areas. Payments could be based on the labour costs invested (agricultural minimum wage, for example), although variable payments according to the species planted or the areas in which these operations are conducted could be possible.

These asset-building PES will guide developments in agrosilvopastoral practices and will help to increase the resilience of agricultural systems in a context of changing climate and environmental conditions by contributing to the diversification of crops and activities and supporting the reintroduction of trees into monocultures (for example, establishing agroforestry systems in order to also produce shade cocoa).

In addition, collective PES will be implemented at the local level to restrict certain land use rights: in exchange for regular payments, users will waive some of their rights, whether real or deemed legitimate locally. A collective dynamic will thus be created supporting commitments for a given use of the territory, for the construction of a sustainable territory or for zero deforestation, depending on the case. In order to plan or locate new perennial plantations, participatory zoning of territories could be developed. This could be based on two indicators: High Conservation Value (HCV), which distinguishes between forests according to criteria such as biodiversity or their socio-cultural role; and High Carbon Stock (HCS), which differentiates between forests which even when disturbed still provide ecosystem services, and highly degraded forests, which can be converted to agricultural plantations.

Indicators of the environmental quality of the territory will also be discussed with populations. PES could help to finance environmental quality improvements that depend on collective action – for example delimiting village lands by means of collective tree planting – and to provide collective advantages (land security through the demarcation or registration of individual plots, drinking water supply, storage facilities, rural roads, schools, dispensaries, etc.) by making them conditional on the maintenance or improvement of environmental quality, which is measured and acknowledged together with the community.

Combining individual asset-building PES and collective land use-restricting PES would create compulsory solidarity (that would also be necessary to achieve efficiency) to guarantee conservation. Establishing the conditional, tied nature of payments (if the collective conservation contract is terminated, individual contracts will suffer the same fate) would help to limit the risks of free riding through the exertion of social pressure.

Implementing a system of this kind requires substantial public involvement, for example to identify and map the individual plots on which farmers will fulfil their contractual obligations. The approach adopted could be that of the rural land use plans (georeferenced cadastral information, with the identification of plots and right holders, and an indication of the exact nature of individual and collective rights).

Financing through innovation

How can a mechanism of this kind be financed? For their zero deforestation commitments to become effective, companies must support the family farmers under contract to enable them to comply with the specifications established, which requires contributions to financing their training and basic investments (nurseries, etc.). However, substantial public investment is also required. Although international finance in the name of climate mitigation or development assistance can be mobilised, a national financing base would shield this programme from the vagaries of international funding.

To ensure sufficient, long-term financial resources, it is possible to use a fee mechanism with a very broad base and low rate, with fees earmarked to the PES programme. This would not be environmental taxation (the principle of which is to tax pollution in order to reduce it), but a yield-oriented tax whose proceeds are allocated to financing a public good: environmental quality improvement in rural territories (through the reintroduction of trees into cropping systems). A broad base means that fees must be applied to as many supports as possible, provided this is socially and therefore politically feasible. This is the condition on which the fee levels can be low enough to be relatively insensitive for the consumers. Indeed, contrary to an eco-tax, the goal of this type of fee is not to reduce consumption of its support (or to increase it), as this would reduce its yield and jeopardise the financing of the PES programme.

Several supports are possible: telephone units (a slight increase in the cost of call seconds); bottled drinks (beer, other alcohol, soda, mineral water, etc.); sporting bets, lotteries (levies on bets and tickets); car tax (increase allotted to the PES programme); water distributed by public networks (likewise); and fuel distributed in service stations (likewise). Companies and distributors would simply collect fees, which would be set by the government and applied in a general, uniform manner. The burden of the fee would fall on final consumers, as with VAT, to ensure its introduction does not distort competition between companies in the different markets.

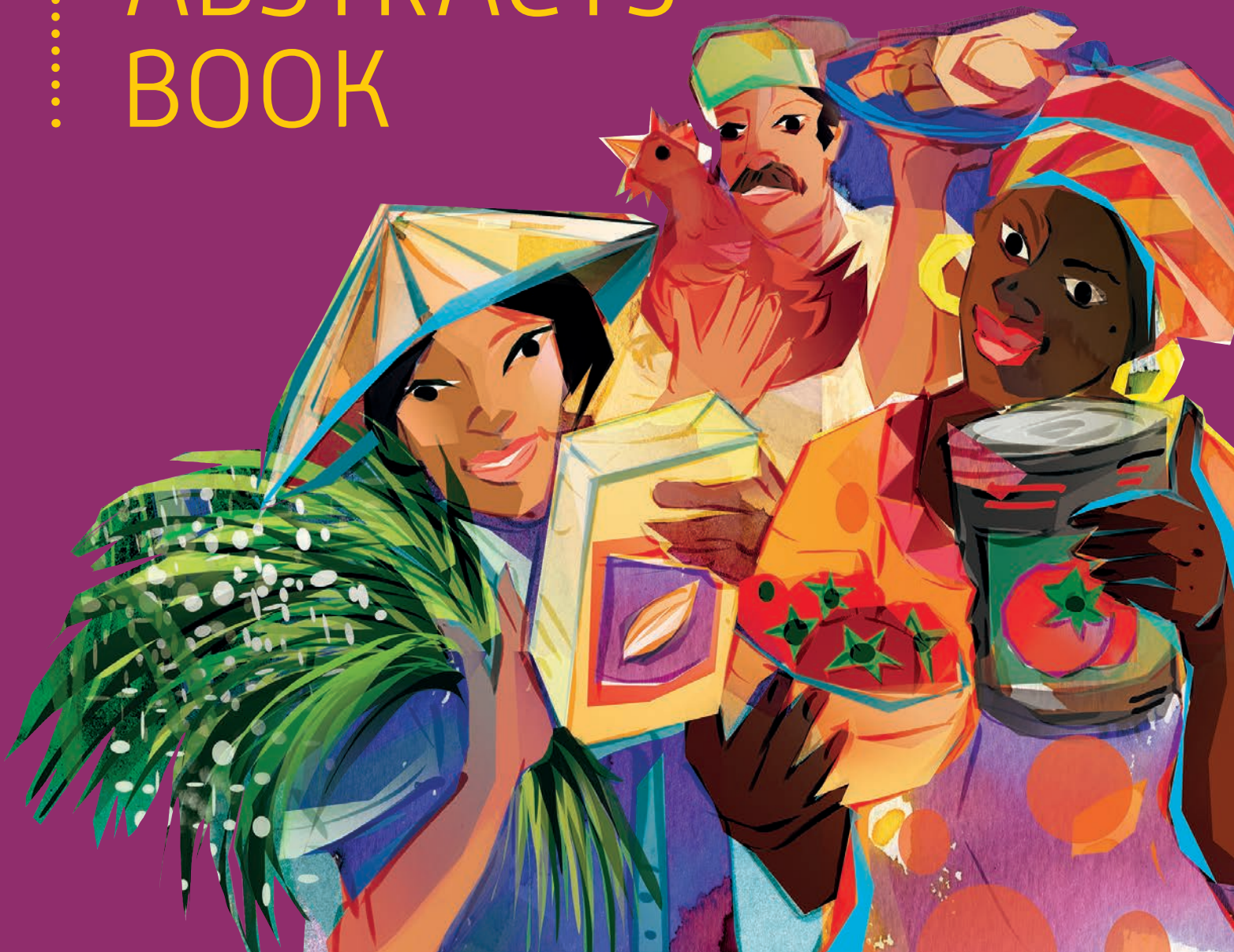
A system of this kind could soon be implemented in Côte d'Ivoire. This country is basing its REDD+ strategy on decoupling agricultural development and deforestation. The first stage will involve setting up pilot PES systems in certain companies' supply areas, in order to form partnerships with the private sector and to test different aspects of PES mechanisms. These pilot projects will serve to analyse different components and methods, and lessons will be drawn from them before proposing a national programme. This change of scale requires the emergence of a reference national operator with staff trained in the pilot mechanisms. Companies will need to confirm their zero deforestation commitments and to contribute to financing asset-building PES. The government will also need to fulfil its environmental commitments by introducing fees allotted to the national PES programme. This would increase the credibility of policies aimed at promoting a green economy, credibility which should be the basis of substantial financial support backed by development partners and specialised institutions such as the Green Climate Fund.

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Agri-Chains & Sustainable Development
> *Linking local and global dynamics*

ABSTRACTS BOOK



WELCOME ADDRESS



Welcome to AC&SD 2016

On behalf of the Scientific and Organizing Committees, it is a great pleasure to welcome you to the International Conference on Agri-chains and Sustainable Development (AC&SD 2016). This conference aspires to widen the debate about the role of agricultural value chains towards sustainable development. Year 2015 was a critical political and diplomatic milestone: the member states of the United Nations signed a new agenda for development, with the 17 Sustainable Development Goals (SDGs) placing sustainability at the core of international efforts. Development and academic actors are since then exploring new avenues for translating the SDGs into reality and implementing global and local frameworks and partnerships. Our conference aims at joining these efforts, with the consideration that agricultural value chains form spaces where local and global challenges to sustainability connect and within which local and global actors experiment and negotiate innovative solutions.

The scientific committee has assembled a very attractive program for AC&SD 2016 that seeks to cover and confront the diversity of realities behind agri-chains, from localized chains, embedded in specific places, to global value chains. In the parallel sessions, transformations of these agri-chains and their connections to sustainable development will be discussed by speakers from the academia, the civil society, the private sector and decision makers. This multi-stakeholder perspective will also be brought about in the plenary sessions. Here, world renowned keynotes and panelists to three high level round tables will discuss about the role and importance of evaluation, public and private institutions and innovations at different scales for transforming agri-chains towards sustainability transitions.

This edition gathers about 250 participants from 39 countries. AC&SD 2016 owes a lot to the scientific and organizing committees for preparing the program, and particularly to Brigitte Cabantous, Chantal Carrasco and Nathalie Curiallet for all the logistics, as well as to our support team of Alpha Visa that we warmly thank for their help.

We wish us all a fascinating, successful, inspiring and enjoyable AC&SD 2016 and we very much look forward to its result and to the strengthening of both a scientific community and a community of practice to implement the outcome!!

Estelle Biénabe, Patrick Caron and Flavia Fabiano,
Cirad Co-chairs AC&SD 2016

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